FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

|   | OMB APPROVAL             |           |  |  |  |  |  |  |  |  |
|---|--------------------------|-----------|--|--|--|--|--|--|--|--|
|   | OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |  |
|   | Estimated average burden |           |  |  |  |  |  |  |  |  |
| 1 | haura nar raananaa.      | 0.5       |  |  |  |  |  |  |  |  |

| _ | Check this box if no longer subject |
|---|-------------------------------------|
| П | to Section 16. Form 4 or Form 5     |
| Ш | obligations may continue. See       |
|   | Instruction 1(b).                   |

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* PAKIANATHAN DEEPIKA  |                                                                                                                                              |                                            |                                                            |                 | Issuer Name and Ticker or Trading Symbol     Karyopharm Therapeutics Inc. [ KPTI ]      Date of Earliest Transaction (Month/Day/Year) |                                                          |        |                  |                                                      |              |                                                    |                                                                                                     | (Che                                         | 5. Relationship of Reporting Person(s) to (Check all applicable)  X Director 10% (                |                                                                                                                |                     |                                                                             | Owner                   |  |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------|------------------|------------------------------------------------------|--------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------|-------------------------|--|
| (Last)                                                        | (Firs                                                                                                                                        | t) (M                                      | iddle)                                                     |                 |                                                                                                                                       | 08/2014                                                  |        |                  |                                                      |              |                                                    |                                                                                                     | below)                                       | er (give title<br>/)                                                                              |                                                                                                                | Other (s            | pecify                                                                      |                         |  |
| DELPHI VENTURES, 3000 SAND HILL RD,<br>BLDG 1, STE 135        |                                                                                                                                              |                                            |                                                            |                 |                                                                                                                                       | 4. If Amendment, Date of Original Filed (Month/Day/Year) |        |                  |                                                      |              |                                                    |                                                                                                     |                                              | 6. Individual or Joint/Group Filing (Check Applicable Line)  X Form filed by One Reporting Person |                                                                                                                |                     |                                                                             |                         |  |
| (Street) MENLO PARK CA 94025                                  |                                                                                                                                              |                                            |                                                            |                 |                                                                                                                                       |                                                          |        |                  |                                                      |              |                                                    |                                                                                                     | Form filed by More than One Reporting Person |                                                                                                   |                                                                                                                |                     |                                                                             |                         |  |
| (City)                                                        | (Sta                                                                                                                                         | te) (Zi                                    | p)                                                         |                 |                                                                                                                                       |                                                          |        |                  |                                                      |              |                                                    |                                                                                                     |                                              |                                                                                                   |                                                                                                                |                     |                                                                             |                         |  |
|                                                               | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned                                                             |                                            |                                                            |                 |                                                                                                                                       |                                                          |        |                  |                                                      |              |                                                    |                                                                                                     |                                              |                                                                                                   |                                                                                                                |                     |                                                                             |                         |  |
| 1. Title of Security (Instr. 3)  2. Transact Date (Month/Day) |                                                                                                                                              |                                            |                                                            | Execution Date, |                                                                                                                                       |                                                          |        |                  | ties Acqui<br>d Of (D) (Ir                           |              | 5. Amou<br>Securiti<br>Benefic<br>Owned<br>Followi | es Fo<br>ally (D)                                                                                   |                                              | n: Direct<br>or<br>rect (I)                                                                       | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)                                              |                     |                                                                             |                         |  |
|                                                               |                                                                                                                                              |                                            |                                                            |                 |                                                                                                                                       |                                                          | Code   | ,                | Amount                                               | (A) o<br>(D) | Price                                              | Reporte<br>Transac<br>(Instr. 3                                                                     | tion(s)                                      | (                                                                                                 |                                                                                                                | ,,                  |                                                                             |                         |  |
|                                                               | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |                                            |                                                            |                 |                                                                                                                                       |                                                          |        |                  |                                                      |              |                                                    |                                                                                                     |                                              |                                                                                                   |                                                                                                                |                     |                                                                             |                         |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)           | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security                                                                        | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year |                 | 4.<br>Transac<br>Code (In<br>8)                                                                                                       |                                                          |        | ive<br>ies<br>ed | 6. Date Exercis<br>Expiration Date<br>(Month/Day/Yea |              | e                                                  | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr. 3<br>and 4) |                                              | 8. Price<br>of<br>Derivative<br>Security<br>(Instr. 5)                                            | 9. Numbe<br>derivative<br>Securities<br>Beneficia<br>Owned<br>Following<br>Reported<br>Transacti<br>(Instr. 4) | e<br>s<br>ally<br>g | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | Beneficial<br>Ownership |  |
|                                                               |                                                                                                                                              |                                            |                                                            |                 | Code                                                                                                                                  | v                                                        | (A)    | (D)              | Date<br>Exercisable                                  |              | xpiration<br>ate                                   | Title                                                                                               | Amount<br>or<br>Number<br>of<br>Shares       |                                                                                                   |                                                                                                                |                     |                                                                             |                         |  |
| Nonstatutory<br>Stock<br>Option<br>(right to<br>buy)          | \$36.04                                                                                                                                      | 07/08/2014                                 |                                                            |                 | A                                                                                                                                     |                                                          | 10,000 |                  | (1)                                                  | 0            | 7/07/2024                                          | Common<br>Stock                                                                                     | 10,000                                       | \$0                                                                                               | 10,00                                                                                                          | 0                   | D                                                                           |                         |  |

## Explanation of Responses:

1. This option vests as to 100% of the underlying shares on June 9, 2015, provided that the holder continues to serve as a director of the issuer through such date.

/s/ Matthew T. Potter,
Attorney-in-Fact for Deepika 07/09/2014
R. Pakianathan

\*\* Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.